[NAME OF DOCUMENT] Abstract

[ABSTRACT]

[SUBJECT] To provide a method for effectively producing a triarylsulfonium salt having a structure that only one aromatic ring of three aromatic rings on the cation portion thereof is different from the other two aromatic rings (hereinafter, abbreviated as a triarylsulfonium salt relating to the present invention) in a high yield without forming any byproduct.

[MEANS FOR SOLUTION PROBLEMS] The present invention relates to a method for producing a triarylsulfonium salt represented by the general formula [4]:

$$\begin{array}{cccc}
R^{1} & & \\
R-S & A_{1} & [4]
\end{array}$$

wherein, two R¹'s represent each hydrogen atom, halogen atom, alkyl group, lower haloalkyl group, alkoxy group, acyl group, hydroxyl group, amino group, nitro group or cyano group; R represents an aryl group which may have a substituent selected from a halogen atom, an alkyl group, a lower haloalkyl group, an alkoxy group, an alkylthio group, a N-alkylcarbamoyl group and a carbamoyl group, and the above substituent is different from one represented by the above R¹; and A₁ represents a strong acid residue,

comprising reacting a diaryl sulfoxide represented by the general formula

$$R^{1} \xrightarrow{\text{II}} S$$

[1]:

wherein, R1 represents the same as above,

and an aryl Grignard reagent represented by the general formula [2]: RMgX [2]

wherein, X represents a halogen atom; R represents the same as above,

in the presence of an activator with high affinity for oxygen of 3 to 7.5 equivalents relative to the above diaryl sulfoxide, and then reacting the resultant reaction mixture with a strong acid represented by the general formula [3]:

HA₁ [3]

wherein, A_1 represents the same as above, or a salt thereof. [SELECTED DRAWINGS] none